Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A radiation-emitting semiconductor component with a layer structure comprising

- an n-doped confinement layer[[(14; 34)]],
- a p-doped confinement layer[[(22; 38)]], and
- an active, photon-emitting layer[[(18; 36)]] disposed between said n-doped confinement layer[[(14; 34)]] and said p-doped confinement layer[[(22; 38)]], ~~characterized in that~~ wherein
- said n-doped confinement layer[[(14; 34)]] is doped with a first n-dopant for producing high active doping and/or a sharp doping profile and
- said active layer[[(18; 36)]] is doped with a second n-dopant, different from the first dopant, for improving the layer quality of said active layer.

2. (Currently Amended) The radiation-emitting semiconductor component as recited in claim 1, ~~characterized in that~~ wherein said first n-dopant serves to produce high active doping and/or a sharp doping profile.

3. (Currently Amended) The radiation-emitting semiconductor component as recited in claim 1[[or 2]], ~~characterized in that~~ wherein said second n-dopant serves to improve the layer quality of said active layer[[(18; 36)]].

4. (Currently Amended) The radiation-emitting semiconductor component as recited ~~in one of claims 1 to 3~~ claim 1, ~~characterized in that~~ wherein said n-doped confinement layer[[(14;

34)]] is doped both with said first n-dopant and with an additional dopant, particularly with said second n-dopant.

5. (Currently Amended) The radiation-emitting semiconductor component as recited in ~~one of claims 1 to 4~~ claim 1, ~~characterized in that~~ wherein said semiconductor component is an LED[[(30)]].

6. (Currently Amended) The radiation-emitting semiconductor component as recited in claim 5, ~~characterized in that~~ wherein said active layer[[(36)]] of said LED is formed by a homogeneous layer.

7. (Currently Amended) The radiation-emitting semiconductor component as recited in claim 5, ~~characterized in that~~ wherein said active layer[[(36)]] of said LED is formed by a quantum well or a multiple quantum well.

8. (Currently Amended) The radiation-emitting semiconductor component as recited in ~~one of claims 1 to 4~~ claim 1, ~~characterized in that~~ wherein said semiconductor component is a laser diode[[(10)]] in which a first waveguide layer[[(16)]] is disposed between said active layer [[(18)]] and said n-doped confinement layer[[(14)]] and a second waveguide layer[[(20)]] is disposed between said active layer[[(18)]] and said p-doped confinement layer[[(22)]].

9. (Currently Amended) The radiation-emitting semiconductor component as recited in claim 8, ~~characterized in that~~ wherein said first waveguide layer[[(16)]] is undoped.

10. (Currently Amended) The radiation-emitting semiconductor component as recited in claim 8, ~~characterized in that~~ wherein said first waveguide layer[[(16)]] is doped with said second n-dopant.

11. (Currently Amended) The radiation-emitting semiconductor component as recited in ~~one of claims 8 to 10~~ claim 8, ~~characterized in that~~ wherein said second waveguide layer[[(20)]] is undoped.

12. (Currently Amended) The radiation-emitting semiconductor component as recited in ~~one of claims 1 to 11~~ claim 1, ~~characterized in that~~ wherein silicon is used as said first n-dopant.

13. (Currently Amended) The radiation-emitting semiconductor component as recited in ~~one of claims 1 to 12~~ claim 1, ~~characterized in that~~ wherein telluride is used as said second n-dopant.

14. (Currently Amended) The radiation-emitting semiconductor component as recited in ~~one of claims 1 to 13~~ claim 1, ~~characterized in that~~ wherein said p-doped confinement layer[[(22; 38)]] is doped with magnesium, carbon or zinc.

15. (Currently Amended) The radiation-emitting semiconductor component as recited in ~~one of claims 1 to 14~~ claim 1, ~~characterized in that~~ wherein said layer structure[[(14-22; 34-38)]] is formed on the basis of AlInGaP, AlGaAs, InGaAlAs or InGaAsP.

16. (New) The radiation-emitting semiconductor component as recited in claim 2, wherein said second n-dopant serves to improve the layer quality of said active layer.